



UNITED STATES PATENT AND TRADEMARK OFFICE

11A
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/649,878 | 08/28/2003 | Yuan-Ting Wu | | 7828 |

7590 12/28/2006
TROXELL LAW OFFICE PLLC
SUITE 1404
5205 LEESBURG PIKE
FALLS CHURCH, VA 22041

| | |
|-----------------------|--------------|
| EXAMINER | |
| MUHAMMED, ABDUKADER S | |
| ART UNIT | PAPER NUMBER |
| 2635 | |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 12/28/2006 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/649,878 | WU, YUAN-TING | |
| | Examiner | Art Unit | |
| | Abdukader Muhammed | 2635 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 28 August 2006.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-20 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The disclosure is objected to because of the following informalities:

In the specification “audio tracks” are referred to as “non-data tracks”, but “audio” and “video” data are generally referred to as real-time-data (see, for example, the abstract of US 6,807,132 b1).

Appropriate correction is required.

Claim Objections

3. Claims 11, 14, 15 and 18 are objected to because of the following informalities:

In claim 11, line 1, “A optical device” should be “An optical device” to be consistent.

In claim 14, line 2, “said optical storage device” (which is cited twice) should be “said optical device” to be consistent with claim 11 or it lacks antecedent basis.

In claim 15, line 2, “said pickup skips” should be “said pickup **head** skips” to be consistent.

In claim 18, line 3, “which have recorded in” should be “which have recorded on” to be consistent.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 6 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6 and 16 refer “audio track” as “non-data track” while “audio” is a type of data that is generally called real-time-data [see, for example, the abstract of Lee (US 6,807,132 b1)]. For the prior art comparison purpose the examiner interprets non-data track as a gap or bad track.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claims 1-4 and 11-14 are rejected under 35 U.S.C. 102(a) as being anticipated by Ishimura et al. (US 6,424,615 B1).

Regarding Claim 1, Ishimura et al. teach a method of reading special track-related information on an optical storage medium (optical disk 10), said optical storage medium having at least one session (volumes) comprising a lead-in area (a lead-in area LI) and at least one data track (program area PRG) [see column 8 lines 40-60 and figure 4], said method comprising: moving a pickup head (optical pickup 42, see figure 7) for reading special track-related information in a target session (the target session in this case is the first volume); first reading TOC (Table of Content) data of said lead-in area in said target session, and then sequentially

reading said data tracks in said target session for reading said special track-related information; and only when finishing reading all of said data tracks in said target session, then moving said pickup head to the next session for continuing on reading special track-related information (see figures 9 and 10 also the details of these figures in column 13).

Regarding Claim 2, as applied to claim 1 above and Ishimura et al. further teach that said sessions (volumes) are sequentially coded with corresponding serial numbers (see column 8, lines 41-46 and figures 4 and 5, the volume starts from 1 up to some number n), and said target session is the first session on said optical storage medium (the target volume starts from 1, see figure 9 step S12 or figure 10 step S25).

Regarding Claim 3, as applied to claim 1 above and Ishimura et al. further teach that said pickup head sequentially (note in figure 9 step S14 shows the next volume is the volume read before plus 1) reads said sessions (volumes), till all of the sessions (volumes) on said optical storage medium are read (see column 13, lines 64-67 and figure 9, step S16).

Regarding Claim 4, as applied to claim 1 above and Ishimura et al. further teach that said pickup head (optical pickup 42, see figure 79) is accommodated in an optical storage device, and when said optical storage medium is placed into said optical storage device, said optical storage device performs said method to execute initialization of said optical storage medium (see figure 10 step S22) to acknowledge data distribution on said optical storage medium (see figure 10).

Regarding Claim 11, Ishimura et al. teach an optical device (reproduction device 30, see figure 7) for reading special track-related information on an optical storage medium (optical disk 10), said optical storage medium having at least one session (volume) comprising a lead-in area

(lead-in area LI) and at least one data track (program area PRG), said optical device comprising: a pickup head (optical pickup 42, see figure 7), for reading special track-related information on said optical storage medium; and a controller (control circuit 36, see figure 7), for controlling and moving said pickup head for reading said special track-related information in a target session; wherein when reading in said target session, said pickup head first reads TOC (Table of Content) data of said lead-in area in said target session, and then sequentially reads said data tracks in said target session for reading said special track-related information; and wherein only when finishing reading all of said data tracks in said target session, said pickup head is then moved to the next session for continuing on reading special track-related information (see figures 9 and 10 also the details of these figures in column 13).

Regarding Claim 12, as applied to claim 11 above and Ishimura et al. further teach that said sessions (volumes) are sequentially coded with corresponding serial numbers (see column 8, lines 41-46 and figures 4 and 5, the volume starts from 1 up to some number n), and said target session is the first session on said optical storage medium (the target volume starts from 1, see figure 9 step S12 or figure 10 step S25).

Regarding Claim 13, as applied to claim 11 above and Ishimura et al. further teach that said pickup head sequentially (note in figure 9 step S14 shows the next volume is the volume read before plus 1) reads said sessions (volumes), till all of the sessions (volumes) on said optical storage medium are read (see column 13, lines 64-67 and figure 9, step S16).

Regarding Claim 14, as applied to claim 11 above and Ishimura et al. further teach that when said optical storage medium (optical disk 10) is placed into said optical device, said optical

device will perform initialization of said optical storage medium (see figure 10 step S22) to acknowledge data distribution on said optical storage medium (see figure 10).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 5, 6, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishimura et al. (US 6,424,615 B1) as applied to claim 1 and 11, above, further in view of Okamoto et al. (US 2001/0055246 A1).

Regarding Claims 5 and 6, Ishimura et al. teach the limitations of claim 1 for the reasons discussed above. Ishimura et al. differ from the claimed invention in that “non-data tracks” are not skipped.

Regarding Claims 15 and 16, Ishimura et al. teach the limitations of claim 11 for the reasons discussed above. Ishimura et al. differ from the claimed invention in that “non-data tracks” are not skipped.

Okamoto et al. teach that if there is a gap (no sound) there is no search performed on the gap (no sound) portion through skipping from the front-end position to the terminal end position of the information.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used skipping method in the system of Ishimura et al. since Okamoto et al. teach that by skipping a gap (no sound) only necessary information is continuously searched

without searching the gap (no sound) portion which is not necessary for the user. Thus, the user is provided with improved operability (see abstract).

10. Claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishimura et al. (US 6,424,615 B1) as applied to claim 1 and 11, above, further in view of Misaizu (US 6,594,214 B1).

Regarding Claims 7 and 17, Ishimura et al. teach the limitations of claim 1 and 11 respectively for the reasons discussed above. Ishimura et al. differ from the claimed invention in that it does not specifically show the track related informations.

Misaizu teaches the track-related information comprises information of data tracks relating to Data Mode/Form, Packet Type including Fixed Packet Type and Variable Packet Type, Packet Size (see column 7, lines 25-32), and Next Writable Address (as a boundary between recorded and unrecorded area). These informations are recorded in the lead-in area specifically in TOC and track descriptor (TDC) (see figures 2, 5-7).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the track information in the system of Ishimura et al. since Misaizu teaches that accurate boundary detection is enabled by using **recorded information** along with the detection of CRC errors, thereby increasing the reliability of the recording/reproducing system (see column 11, lines 23-27).

11. Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishimura et al. (US 6,424,615 B1) as applied to claim 1 and 11, above, further in view of Nonaka et al. (US 5,471,441).

Regarding Claim 8, Ishimura et al. teach the limitations of claim 1 for the reasons discussed above. Ishimura et al. differ from the claimed invention in that it does not have program memory area PMA with recording capabilities of specific information given in the instant application.

Regarding Claim 18, Ishimura et al. teach the limitations of claim 11 for the reasons discussed above. Ishimura et al. differ from the claimed invention in that it does not have program memory area PMA with recording capabilities of specific information given in the instant application.

Nonaka et al. teach that said optical storage medium comprising a Program Memory Area (PMA) [this is generally used as a temporary TOC area] for recording information relating to serial numbers, starting addresses, ending addresses and attributes of tracks which have been recorded on said optical storage medium (see column 3, lines 15-30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the specific type of program memory area PMA the system of Ishimura et al. since Nonaka et al. teach that the reason for recording such information as temporary TOC in the PMA is that since information is writable in the remaining program area, TOC information cannot be recorded in the lead-in area LIA until the finalization of recording is eventually instructed (see column 3, lines 30-36).

12. Claims 9, 10, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishimura et al. (US 6,424,615 B1) in view of Nonaka et al. (US 5,471,441) as applied to claims 8 and 18, above, and further in view of Kono (US 5,305,296).

Regarding Claims 9, 10, 19, and 20, Ishimura et al. teach the limitations of claim 1 for the reasons discussed above. The combination of Ishimura et al. and Nonaka et al. also teach the limitations of claims 8 and 18 for the reasons discussed above. The combination of Ishimura et al. and Nonaka et al. differ from the claimed invention in that when pickup head reads un-closed sessions they do not specifically show the reading of the program memory area PMA (claims 9 and 19) and the recording PMA information in memory (claims 10 and 20).

Kono on the other hand teaches a method and apparatus for recording information on an optical disc wherein when the pickup head (optical pickup 2, see figure 1) reads un-closed session (partially recorded), said pickup head does not read said lead-in area of said un-closed session, but reads information recorded in the PMA to perform further judgment (determines whether index information can be read from PMA, see column 8 line 64-68), and wherein when any data track is found in said un-closed session, said pickup head jumps directly to said un-closed session to sequentially read said data tracks for reading said special track-related information (after reading the PMA recording/reproduction continues, see column 9 lines 10-20 and figures 2 and 3) [Claims 9 and 19].

Kono also teaches the PMA of the optical storage medium is read when said optical storage medium is placed into said optical storage device (executing a subroutine for reading the information recorded in the PMA, see column 8 lines 49-55), and further recorded in system memories (index information stored in memory) of said optical storage device (see column 8 lines 49-55 and figure 2 steps S1 and S2) [Claims 10 and 20].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a system of reading the program memory area PMA for open sessions

and recording the information in memory in the system of the combination of Ishimura et al. and Nonaka et al. since Kono teaches that “the TOC information cannot be recorded in the lead-in area of partially recorded disc until the completion of recording of all the desired information is finally instructed. Consequently, information about the tracks that have already been recorded is temporarily stored in the PMA.” (see column 3, lines 49-57).

Conclusion

13. The prior art made of record in PTO-892 Form and not relied upon is considered pertinent to applicant's disclosure.

Kusumoto et al. (US 6,853,609 B2) teach a loop gain adjustment of a focus/tracking servo in an optical disk apparatus, and provides an optical disk apparatus which can make the loop gain adjustment converge normally even in an optical disk in which prerecorded areas and recorded areas are mixed, and further which always has a stable servo system even when a gain is significantly varied due to changes in the disk state.

Murata (US 6,621,783 B1) teaches an optical disk recording apparatus and method in which Upon loading of an optical disk into a CD-R/RW drive, access is first made to a given location within an innermost lead-in area of the optical disk, to retrieve a starting time of the innermost lead-in area from ATIP information. Then, access is made to a starting point of a PMA area of the disk. After that, on the basis of a time interval between adjoining tracks represented by the PMA information, the tracks are divided into a plurality of sessions.

Lee (US 6,807,132 b1) teaches a method for servo-controlling when a reproduction is requested to a multi-session disk for non-real-time data or real-time data of audio or video stream. This servo-control method using the information of table of contents (TOC) reads

information of a table of contents written in a disk when a data-requesting command is received from a connected host.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdukader Muhammed whose telephone number is (571) 270-1226. The examiner can normally be reached on Monday-Thursday 8:00-5:00.

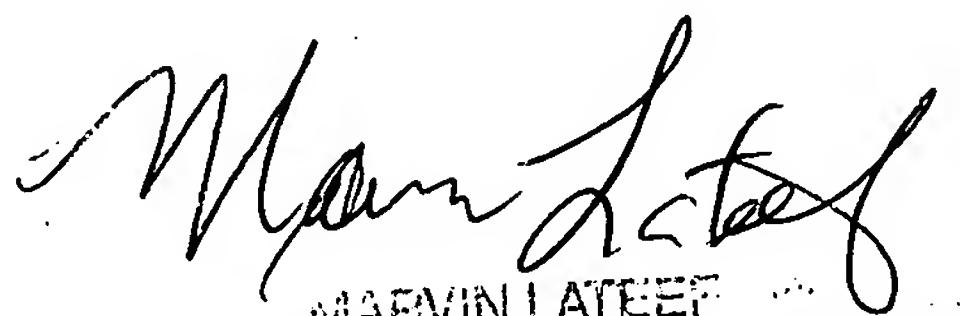
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marvin Lateef can be reached on (571) 272-5026. Customer Service can be reached at (571) 272-2600. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

am

am

20 December 2006



MARVIN LATEEF
SUPERVISORY PATENT EXAMINER